1.0 SCOPE

This Pre-Defined Reports (PDR) Users Manual provides information on a subset of the overall PDR System. The reports covered by this manual are listed in Paragraph 5.1.1, Suite of Reports and Capabilities. See the Global Command and Control System (GCCS) Predefined Reports Users Manual, (as referenced in Section 2.0, item a.), for detailed information concerning Transportation Feasibility Estimator (TFE), Logistics Factors File (LFF), Port Characteristics (PORTS), Aerial Ports and Air Operating Bases (APORTS), and Operation Plan (OPLAN) Narrative related reports. See the GCCS Center, Software for Pre-Defined Reports Users Manual (as referenced in Section 2.0, item b.), for Force Personnel, Country Code Table, and Type Unit Equipment Detail (TUDET) related reports.

1.1 Identification

This users manual, developed in accordance with MIL-STD-498, (as referenced in Section 2.0, item c.), applies to the PDR System, Version 1.6.2. This is a subsystem of the Joint Operation Planning and Execution System (JOPES) component of the GCCS, Version 2.1.

This document supersedes GCCS System Integration Support PDR Users Manual, dated December 8, 1995.

1.2 System Overview

The need for a replacement of the legacy systems has been long recognized. In the summer of 1994, a migration strategy was developed. Refer to the Joint Operation Planning and Execution System (JOPES) Migration Strategy (Draft) and the Migration Engineering Strategy Guide Near-Term Migration Strategy (as referenced in Section 2.0, items d. and e.). These documents addressed the various legacy elements that required migration and provided an overview of the time and effort required to migrate to the GCCS. After initiation of several of the major projects (e.g., Scheduling and Movement (S&M) and Requirements, Development and Analysis (RDA)), a pre-defined reports replacement project (later named PDR) was initiated. The project is directed by the Defense Information Systems Agency (DISA) with the user community being represented by the JOPES User Review Panel (URP) (as referenced in Section 2.0, item f.).

PDR provides JOPES users with the capability to generate, (pre)view at the terminal, and/or print various reports that draw from a wide variety of information available within the JOPES Core database. PDR is the result of migrating and integrating applicable portions of the Joint Operation Planning System (JOPS) and the Joint Deployment System (JDS). This pre-defined reports capability is for deliberate or peacetime planning and time-sensitive or Crisis Action System (CAS) planning. From a functional viewpoint, the legacy systems (JOPS/JDS) procedures for pre-defined reports were satisfactory; however, technical issues associated with the GCCS development necessitated a migration to a modern, state-of-the-art operating environment.

Because PDR is a new system, it is recommended that first time users read the entire users manual before attempting to execute any programs. The users manual provides a general overview of the system and its functions, as well as detailed instructions (see Section 5.0, PROCESSING REFERENCE GUIDE) for executing the various functions.

3.3.2.1 Tablespace

PDR uses a single tablespace '*PDR*' to accommodate all the local PDR objects. This tablespace provides 300MB of disk space to support all PDR client instances.

3.3.2.2 Tables

PDR uses several local tables in the generation of the reports. These tables are discussed in the following paragraphs.

3.3.2.2.1 Collection Tables

PDR uses the collection tables listed below to identify the target records for any given report.

PDR_GEO_COLLECTION
PDR_RQMTS_COLLECTION
PDR_TUCHA_COLLECTION

3.3.2.2.2 Intermediate Data Tables

PDR uses intermediate data stores to hold the target data set for several of the reports. These are listed below.

BG_RPTS_DATA
F11D_TEMP
F11D_SORTED
PDR_F11E_SQ_TEMP01
PDR_F11E_SQ_TEMP02
PDR_F11E_SQ_TEMP03
PDR_F11E_SQ_TEMP04
PDR_F11E_SQ_TEMP05
PDR_F11E_SQ_TEMP06
PDR_F11E_TN_TEMP01
PDR_F11E_TN_TEMP02
PDR_F11E_TN_TEMP03
PDR_F11W_TEMP01
PDR_F30_CAT_DATA
PDR_F30_CAT_INT_DATA
PDR_F30_TYPE_DATA
PDR_F30_TYPE_INT_DATA
PDR_FM_RPTS_DATA
PDR_FM_RPTS_INT_TOTALS
PDR_FM_RPTS_ROWS
PDR_FM_RPTS_TOTALS
PDR_FM_RPTS_TRANS_CATS

3.3.2.4 Packages

PDR has encapsulated some database-intensive routines into packages, which are resident on the database server. These are listed below.

PDR_PK_BG_AIR
PDR_PK_BG_AMC
PDR_PK_F11D
PDR_PK_F11E_SQ
PDR_PK_F11E_TN
PDR_PK_F11W
PDR_PK_F30
PDR_PK_FM
PDR_PK_FM1
PDR_PK_FM2
PDR_PK_FM3
PDR_PK_FM4
PDR_PK_FM5
PDR_PK_SYN

3.3.2.5 Role

PDR maintains access permissions to database objects by defining a role, *PRE_DEFINED_REPORTS_USER*, which has the required set of object privileges associated with it. PDR users are then associated with this role.

3.4 Software Environment

This paragraph provides the hardware and software resources required to run PDR.

3.4.1 Hardware Requirements

Specific hardware requirements can be found in Appendix A of the GCCS Common Operating Environment baseline (refer to Section 2.0, item n.). In general terms, however, PDR requires a Sun database server to run the PDRSRV database segment, and either a Sun or an HP platform to run the PDR client segment. The PDR client segment may be accessed directly or from a PC running X-terminal emulation software. For full PDR operation, a PostScript printer is required.

3.4.2 Software Requirements

The following commercial-off-the-shelf (COTS) products are required to run PDR:

a. Sun Solaris 2.3,

b. ORACLE Relational Database Management System (RDBMS) ORACLE 7 Server Release 7.1.3 or higher with distributed option,

c. ORACLE Programming Language/Structured Query Language (PL/SQL), Release 2.1.4.0.0,

d. ORACLE Reports 2.0.14, (Runtime only [R20RUN]), and

e. ORACLE SQL NET 2.0.

3.4.3 GCCS Segment Dependencies

The following GCCS segments are required by the PDR Application Segment:

a. GCCS COE

b. ORACLE Application Server Tools Segment

This segment contains the ORACLE Reports software.

c. RDA Application Segment

PDR does not have an absolute requirement for the RDA Application Segment, but either the RDA Application Segment or the JNAV Application Segment must be present for PDR reports to be initiated.

d. JNAV Application Segment

The JOPES Navigation Segment provides some common services to PDR, such as Help and print services. JNAV is also required to provide a PDR launch capability independent from RDA.

e. Executive Manager (EM) Segment

PDR makes use of the Printer API present in the EM segment.

f. TCL/TK Application Segment

The TCL/TK Application Segment is required to provide runtime libraries, which are used by PDR in several areas, e.g., report monitor icons and ASCII report viewing.

The following GCCS segments are required by the PDRSRV Database Server Segment:

a. GCCS COE,
b. S&M Database Segment (SMDB), and
c. RDASRV Database Segment.

3.5 Software Organization and Overview of the Operation

The PDR System is based on a standard set of windows consisting of primary windows that contain a title bar (located at the top of the window), a resize border (the edges), a window menu button (top left corner), and window control buttons, with the major portion of the window devoted to the application or functional operation performed by the user. The title bar shows the name of the requested report.

For each major function, PDR has a primary window. Each primary window also has the PDR menu of reports available, which allows the user to "jump" directly to another PDR function within the current session. The major functions are:

a. OPLAN-Based Reports,
b. Reference File Header Information,
c. GEO Paging/Reports, and
d. TUCHA Paging/Reports.

PDR also contains many secondary windows that have title areas and menu buttons. These secondary windows provide additional information to the user and support further actions depending on the functionality being provided.

Although windows can be displayed in either an overlapped or tiled arrangement, depending on the desires of the user and the operation being conducted, they are normally used in an overlapping mode. The user has the capability to move, expand, or iconify windows as in any window application.

3.5.1 Supervisory Controls

A user must be specifically enabled for PDR to be able to use PDR. Scripts are provided to accomplish this (*/h/PDRSRV/install/ pdr_enable_user.csh* and*/h/PDRSRV/install/ pdr_disable_user.csh*). These scripts are part of the database server segment (PDRSRV), and are run on the server. Access to database objects is controlled by an ORACLE role, PRE_DEFINED_REPORTS_USER. This role is assigned to a user by the enable user script.

3.5.2 Logical Components

PDR consists of a number of user interface screens through which the user defines the parameters, e.g. target data set, necessary to run a particular report. The user interface is implemented using Gain Momentum. The reports themselves are implemented in either ORACLE Reports or TCL/TK. A series of UNIX and SQL scripts provide the interface between the Gain Momentum and ORACLE Reports, or Gain Momentum and TCL/TK. These component parts are illustrated in Figure 3.5.2-1, PDR Logical Components.

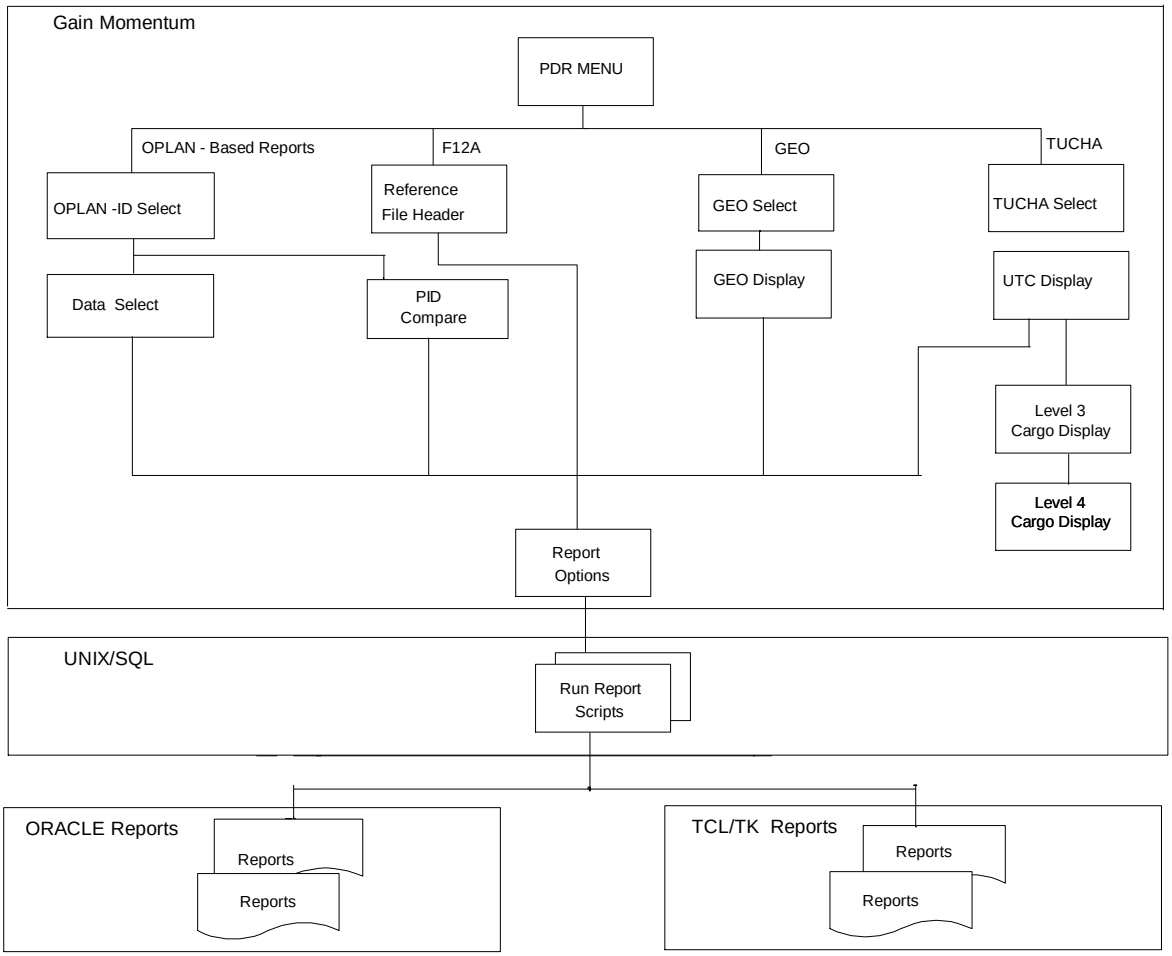

Figure 3.5.2-1. PDR Logical Components

3.6 Contingencies and Alternative States and Modes of Operation

3.6.1 Execution Limit

PDR is implemented using the Gain Momentum software development product. Experience has shown that the typical GCCS application server platform can support only a limited number of Gain Momentum instances before response degrades to an unacceptable level. PDR implements a self-limiting mechanism such that no session will be initiated if the maximum number of concurrent Gain Momentum processes has been reached. This threshold is set to '5' in the PDR segment as delivered, but is site-adjustable by executing the */h/JNAV/bin/gain/set_max_gain_processes.csh* script. It should be noted that this limit is applied to Gain Momentum processes, which includes other products besides PDR, e.g. RDA.

3.6.2 Printerless Operation

The operation of PDR depends upon the availability of a printer, which must be configured and defined to the ORACLE Report Writer (OR). This is true even for reports generated to the screen, as OR uses the

The legend page, where present, provides an interpretation for heading abbreviations. The legend page will always be present when a legend page was provided in the legacy system.

The report footer lines contain report identification, classification, report generation date/time, and report page number. It was decided to provide this information on the footer (rather than on a header) for greater visibility. It was considered likely that hard-copy versions of these reports will frequently be bound (stapled, put in a 3-hole binder, etc.), in which case, information placed in a header will tend to become obscured. For this reason, the reports also leave some additional white space at the top margin, and have a narrower bottom margin.

3.9.3 Report Content

Changes have been made to the contents of the reports in some areas. Some of these changes are at the request of the JOPES URP, some are necessitated by changes in the database structure, and some are the result of implementing a 'hybrid' report when conflicting requirements exist in different implementations (JOPS and JDS) of the legacy reports. One important change, for instance, is that Petroleum, Oils and Lubricants (POL) is now reported in Thousands of Barrels (MBBLS) on all reports. Another change concerns the reporting of dates, such as record update date. In the GCCS database, a date field will automatically include time of day. In some reports (where space permitted), the time of day is shown along with the date. This does not apply to TPFDD dates, such as Ready-to-Load Date (RLD), Available-to-Load Date (ALD), which are stored as relative days.

3.9.4 Self-Limiting Mechanism

The user may run into the situation where a new PDR session cannot be started because a limit has been reached. In these instances, the user will be informed via a pop-up window. The user should wait a few minutes and try again, or contact the local System Administrator to see if the limit can be raised. A stand-alone script *(h:/JNAV/bin/gain/set_max_gain_processes.csh)* has been provided for the System Administrator (SA) to adjust the value of this limit. This limit applies to the number of concurrent instances of Gain Momentum processes. It should be noted that this is not a PDR limitation, but applies to all applications which are implemented in Gain Momentum. This currently includes RDA in addition to PDR.

3.9.5 Cancel Report Mechanism

The Cancel Report mechanism is now implemented using an icon, which represents an instance of a report. The icon will appear at the time of report initiation (for reports generated to the screen) and will disappear shortly after the report is closed. Double clicking on the report's Cancel icon will provide the user a Cancel Report button. While a report is generating behind an icon, the user is able to continue useful work, including the generation of other reports. The user should be cautious when initiating multiple concurrent instances of the same report, as the icon does not differentiate between multiple instances of the same report type.

3.9.6 Reports' Total Pages

For performance reasons, the Total Pages display has been removed from the reports' banner pages and footers. In order to support this field, the ORACLE Reports (OR) application is forced to format all pages of the report to determine the value of this field, and only then is the report ready for presentation to the screen. During this process, OR consumes large amounts of system resources to buffer the complete report. Without this field, OR is able to return completely formatted pages to the screen earlier, which allows the user to view the earlier pages while OR is continuing to format the later pages. Observation has shown, however, that the behavior of the report generation is now somewhat unpredictable. Formerly the delay incurred during report generation was predictably up front; now, the delay may occur during user preview of the report, e.g. when paging forward to an as yet unformatted page.

3.10 Functionality Shortfalls

There are still some shortfalls in the current PDR system, in that some features which exist in the legacy systems are not yet available in GCCS. Some of the more significant shortfalls are listed below.

3.10.1 OPLAN-Based Reports Scope Options

The OPLAN-based reports execute only against a defined collection (for RDA, a marked collection). The option to run against the entire OPLAN (without defining this as a collection) is not yet available.

3.10.2. GEO Paging/Report

Full range of user selection options, such as GEO Circle/Rectangle Search, are not yet available.

3.10.3 TUCHA Paging/Reports

Full range of user selection options are not yet available. Full range of reports, e.g. level 3 and level 4 cargo, are not yet available.

3.11 Known Errors

This section describes the more significant known errors in PDR.

3.11.1 Cargo Reporting Inconsistencies

The user should be aware that the different reports produce different results when reporting cargo data. The matrix in Table 3.11.1-1 summarizes the cargo reporting rules currently followed by each of the reports.

Table 3.11.1-1. Cargo Reporting Rules

Report	Req Types	PAX	POL	Wt/Vol	Sq Ft	Comments
F11E_TN	u,c,p	L-2	L-2	L-2	Not Reported	Weight and volume are shown by Cargo Extent (bulk, ovsz, otsz, nat), which is available in that form at level 2.
F11E_SQ	u,c,p	L-2	L-2	L-3	L-3	Weight, volume and area are shown by Cargo Type (veh, NSDAB, other), which are rolled up from level 3 cargo data.
F11W	ULN only	L-2	L-3	L-2 L-3	L-2 L-3	Totals for a ULN are reported directly from the level 2 data (and may not equal the sum of subordinate level 3 cargo records shown). Totals for a cargo category code are reported directly from the level 3 data (and may not equal the sum of subordinate level 4 cargo records shown).
F30	u,c,p	L-2	L-2	 L-2 L-3	 L-3	Totals for PAX and POL Total tonnage by Cargo Size Total tonnage by Cargo Category
FM Rpt/ FM Rollup Rpt	u,c,p	L-2	L-2	L-2	L-2	All cargo information is taken from level 2.
BG Air/AMC	u,c,p	L-2	L-2	L-4/L-3	Not Reported	Totals reported for a cargo category code are the sum of subordinate level 4 cargo records. Totals reported for a ULN are the sum of cargo category totals.
BG Sea/MSC	u,c,p	Not Reported	Not Reported	L-4/L-3	L-4/L-3	Totals reported for a cargo category code are the sum of subordinate level 4 cargo records. Totals reported for a ULN are the sum of cargo category totals.

3.11.2 Unreliable Results Using the Errors... Data Selection Pick

The user is now able to select "Errors..." as a criterion for defining a collection of TPFDD records. The user is cautioned that this selection is not reliable in that it keys off already established error flags which may no longer be current for the OPLAN. To refresh the errors flags for the entire OPLAN, the Verification Engine (VE) must be run. From PDR, the user can run the VE by defining a collection containing all requirements in the OPLAN, and then executing a Logical Errors, or a TCC-PreEdit Report.

3.11.3 Report Sorting

The pick list to define a user-defined sort is displayed in the order in which the data elements appear on the report. This makes it difficult to find any given data element in the list when defining a sort key.

When a data element is defined for sorting and that data element contains instances of both spaces and "null" values in the data base, the instances of spaces will sort to the top of the list, and the instances of "null"

values will sort to the end of the list. This may appear confusing as there is no visible difference between these two values (both show on the report as spaces).

Some reports which process ULNs and CINs and PINs do not offer "Requirement Type" in the sort key list, with the result that ULNs, CINs, and PINs may be interspersed in the report. This can be mitigated by running reports separately for ULNs, for CINs and for PINs.

3.11.4 RDA Initiated Reports

Reports initiated from RDA do not show user selection options on the cover page.

3.11.5 Airlift/AMC Reports

Totals for a channel are not being aggregated in all cases. When this has been observed to occur, totals are being reported at the requirement level as though this is the channel total.

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3.11.6 F11W Report

This report prints an additional ULN totals line erroneously.

This report does not function correctly when multiple Intermediate Locations (ILOCs) are present for a requirement. This condition should not be present, however, in the field.

3.11.7 F30 Report

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Records are being reported on the exception report as "records with incomplete movement data" when it is not clear why, as these records are not flagged in all cases by the Verification Engine. As the records on the exception report are excluded from the requirement summary, the results could be skewed.

3.11.8 FM Reports

On the Personnel Section of the FM Report, the transportation mode and source codes are reported incorrectly.

When running the FM Report and the FM Rollup Report, using the Execute Previous Query button will not work, and should not be used.

When running multiple FM Reports, the user should back out to the OPLAN_ID select window after each report is run, before starting the next report, otherwise report content of subsequent reports is unpredictable.

3.11.9 PID Compare

PID Compare is not reporting all differences for nonunit requirements. Differences are not being reported for POE and POD GEOs, and for Mode and Source to POD.

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The PID Compare Report does not show user data selections when running a comparison on only selected data elements.

When running PID Compare, informational messages are provided to the user. These messages assume the user is initiating the report from RDA, and the text includes reference to RDA activities. This may be confusing to the PDR user, but is harmless.